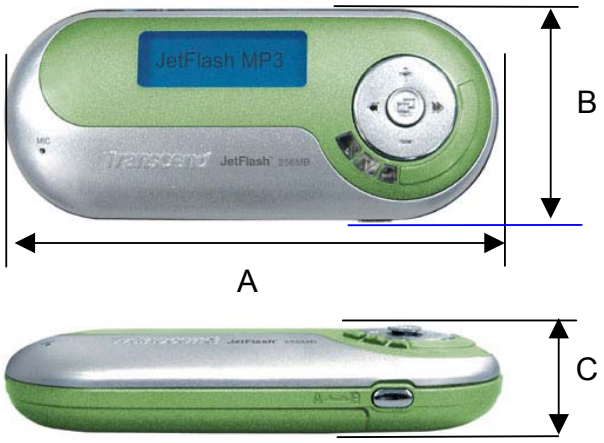
TS256MJF-MP3

256MB JetFlash MP3

Description

TS256MJF-MP3 is a 256MB USB Flash Drive with 1 pcs of 256Mx8 or 2 pcs of 128Mx8 Flash Memory assembled on the printed circuit board. It combines a USB Flash Drive with an MP3 player, AB repeater, voice recorder and an FM radio.

Outline



Features

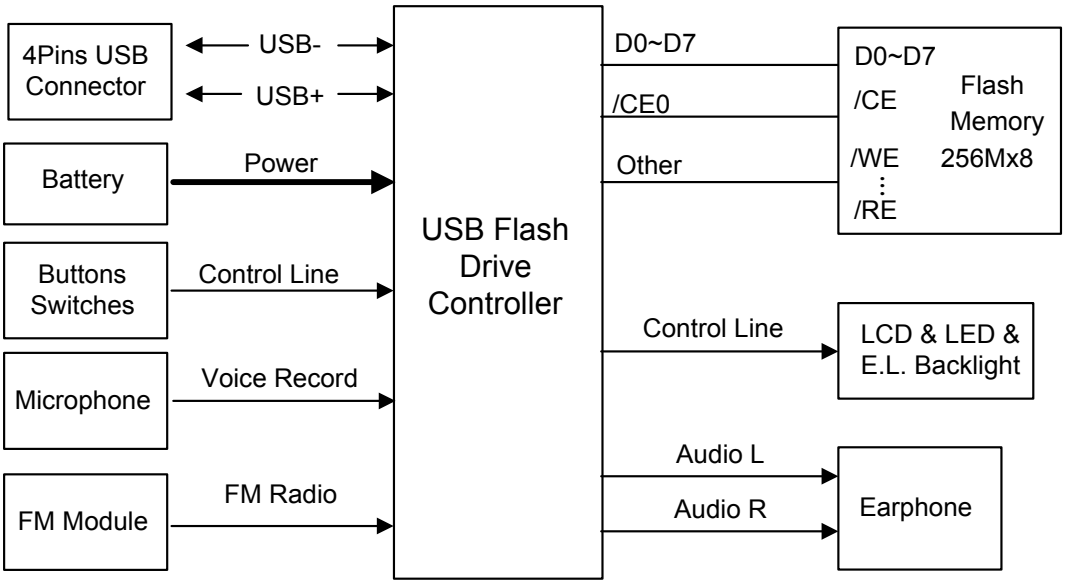
- USB Interface: Compliant with USB specification 2.0
- Supports MP3, WMA, and WAV formats
- MP3 Player
- Digital Voice Recorder
- AB repeater continuously replay a designated section of a track
- Preset ten FM channels and record from the FM channel to a WAV file
- Auto-powers off after five or ten minutes without use
- LCD Display indicates the usage status
- Operating Systems Supported: Windows® 98SE, Windows® Me, Windows® 2000, Windows® XP, Mac™ OS 9.0 or later, and Linux™ kernel 2.4 or later

Dimensions

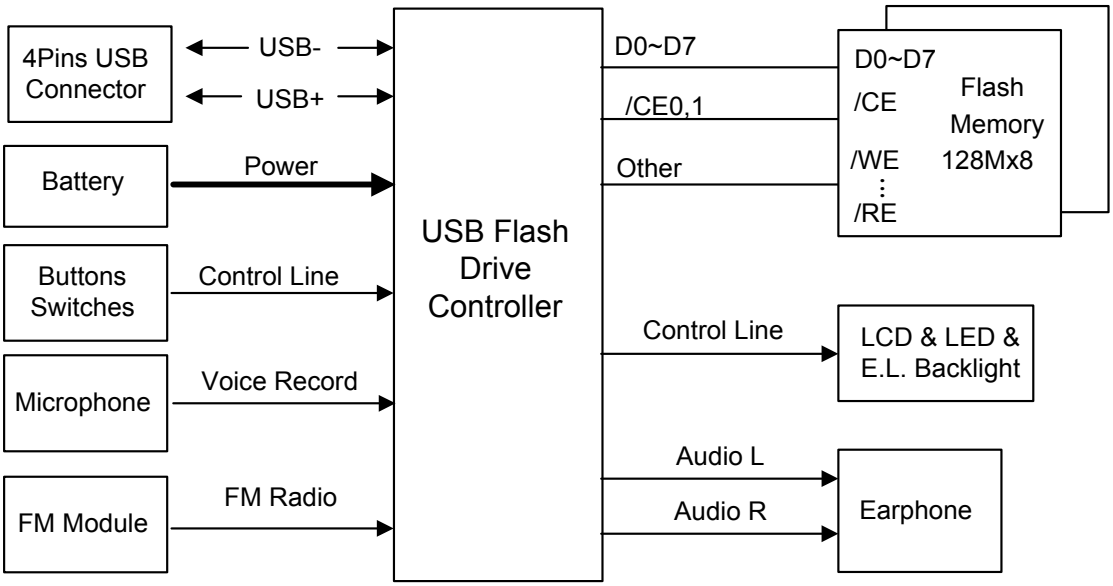
Side	Millimeters	Inches
A	86.00 ± 1.00	3.39 ± 0.04
B	36.00 ± 1.00	1.42 ± 0.04
C	16.50 ± 1.00	0.65 ± 0.04

Block Diagram

• **With 1 pcs of 256Mx8 Flash Memory**



• **With 2 pcs of 128Mx8 Flash Memory**



Pinouts

Pin No.	Pin Name
01	VCC
02	USB-
03	USB+
04	VSS

Pin Identification

Symbol	Function
USB- USB+	USB differential signal: The pairs are used to transmit Data/Address/Command
VSS	Ground
VCC	USB Power Input

Absolute Maximum Ratings

Parameter	Min	Max	Unit
Ambient Operating Temperature	-10	60	°C
Analog Supply Voltage	-0.3	1.98	V
Digital Supply Voltage	-0.3	1.98	V
I/O Supply	-0.3	3.6	V
5 Volt Source Voltage	-0.3	5.25	V

Specifications

Host Interface	USB 2.0
Storage Capacity	256MB
Dimension	86 (W) x 36 (H) x 16.5 (D) mm
Weight	25g (without battery)
Data Retention	10 years
Connector Durability	10,000 times
Media Transfer Rate	Read: 25Mbit/sec (Typ.), Write: 22Mbit/sec (Typ.)
Interface Burst Transfer Rate	Full Speed: 12Mbit/sec (Max.), High Speed: 480Mbit/sec (Max.)
Power Supply	USB mass storage: DC 5V ± 10% via USB port, MP3 player: 1.5V AAA battery
Power Consumption	USB mass storage: Read 100 mA, Write 115 mA; MP3 player: 45 mA
Output Frequency	20Hz–20KHz
Signal-to-Noise Ratio	90dB
Playback Format	MP3 and WMA
MP3 Compress Rate	32Kbps-320Kbps
Consecutive MP3 Playing Time	15 hours (with new AAA Alkaline battery)
Voice Record Format	ADPCM (WAV), Mono
Voice Record Time	16 / 8 / 4 hours (Low=8KHz / Normal=16KHz / High=32kHz), depends on record rate
Earphone Connector Size	3.5m
Earphone Voice Coil Lmp.	32Ω ± 15%
Earphone Output Level	5mW + 5mW
Temperature Range	Operating: -10 ℃ to 60 ℃
Certificates	CE, FCC, BSMI

Recommended Operating Conditions

Parameter	Min	Typ	Max	Unit
Ambient Temperature	0	-	70	°C
Digital core Supply Voltage – VddD1, VddD2, VddD3 Specification dependent on DSP frequency	1.25	-	1.98	V
Digital I/O Supply Voltage - VddIO1, VddIO2	2.9	3.0	3.6	V
Analog Supply Voltage – VddA (VddA1, VddA2, VddA3) Specification dependent on maximum output power	1.25	-	1.98	V
Battery Startup Input Voltage in 1xAAA Mode	0.9	-	-	V
Full Scale Input Voltage: Line Inputs (Note 1) Mic Input: With 20dB boost Without 20dB boost	-	 0.6 0.06 0.6	-	Vrms
Full Scale Output Voltage with 16Ω Load: Earphone/Line Output (VddA = 1.8 V)	-	0.54	-	Vrms
Earphone/Line Output (VddA = 1.35 V)	-	0.42	-	Vrms
Crosstalk Between Input Channels(16Ω load at 1 KHz)	-	-75	-	dB
Total Harmonic Distortion+N (32Ω earphone at 1 KHz)	-	-70	-66	dB
Total Harmonic Distortion+N (10KΩ Load at 1 KHz)		-87		dB
Analog Line Input Resistance (Note 2)	-	25	-	kΩ
Microphone Input Resistance	-	100	-	kΩ
Analog Output Resistance	-	-	<1	Ω
DAC SNR Idle Channel (Note 3)	-	96	-	dB
DAC –60dB Dynamic Range (Note 3)	92	94	-	dB
ADC SNR Idle Channel (Note 3)		90		dB
ADC –60dB Dynamic Range (Note3)		90		dB
Lin SNR (Note 3)	92	94	-	dB
Standby Current (Note 4)		20		uA

Note:

1. At 1.35VddA max input is 0.45Vrms.
2. Input resistance changes with volume setting: 10KΩ at +12dB, 25KΩ at 0dB, 50KΩat -34.5dB.
3. Measured “A weighted” over a 20 Hz to a 20 kHz bandwidth, relative to full scale output voltage (1.8V).
4. The chip consumes current when in the *“OFF”* mode to keep the crystal oscillator and the real time clock running.

Above technical information is based on industry standard data and tested to be reliable. However, Transcend makes no warranty, either expressed or implied, as to its accuracy and assumes no liability in connection with the use of this product. Transcend reserves the right to make changes in specifications at any time without prior notice.